

## ATTACHMENT - REMARKS

By this further Amendment filed with an RCE, independent claims 2, 19 and 20 and certain claims dependent therefrom have been amended to more particularly define the present invention. It is submitted that the present application is in condition for allowance for the following reasons.

Initially, it is noted that an Amendment with responsive remarks was filed on June 14, 2010. In the Advisory Action mailed June 28, 2010, the examiner indicated that the Amendment would be entered; but asserted in response to the arguments for patentability made that the term "stable" when referring to the output frequency of a source of microwave radiation was a relative term and thus did not differentiate the present invention from Warner so that the rejections of the claims (in the *Claim Rejections - 35 USC § 103* section, where independent claims 2, 19 and 20 and dependent claims 3-13, 15-18, 21-26 and 42 were all rejected as being obvious over the principal Warner in view of the newly cited Bouisse and the previously cited but not applied Mody) would still stand.. However, for the following reasons, it is submitted that these claims are now all allowable over this combination of references.

By this further Amendment, in order to give the phrase "stable" the required definiteness and consequently to differentiate over the cited art, independent claims 2, 19 and 20 have been amended to refer to a "phase-locked" source. This feature of the invention has basis in the context of providing a stable signal at page 31, lines 13-15 of the original specification. It is therefore submitted that, in conjunction with the previous arguments, the present application is now in condition for allowance for the following additional reasons.

Neither Warner nor Bouisse teach or suggest a phase-locked source as now claimed. Moreover, there is no suggestion that there would be any advantage to using a phase-locked source in Warner or Bouisse; and in fact there would not be. For Warner, this is because only magnitude is measured (so phase relationship is immaterial). For Bouisse, this is because the signal is lower frequency (i.e., longer wavelength) so any phase drift has a proportionally smaller effect; and because the signals received by the phase comparator are coupled directly from the signal channel between the driver and load, so any long-term drift affects both signals equally. [And obviously Mody does not teach this as well since it is only cited for a frequency range teaching.]

It is also noted that in the Advisory Action, the examiner also asserted that "Applicants specification mentions using an unstable source with a band filter to create a stable output [pg. 32, II 6-14]. However, the present application does not teach that an unstable source can be used, contrary to the Examiner's assertion and citation. The passage mentioned by the Examiner refers to a broadband source and a narrow band filter. A broadband source is not synonymous with an unstable source, as is well appreciated by those of ordinary skill.

It is further noted that in the Advisory Action, the examiner further asserted that "Bouisse teaches using a local oscillator with the VSWR to assist in determining phase {par. 0018}." However, there simply is no local oscillator to be found anywhere in this document. Paragraph [0018] refers to a "Local Oscillator (LO) port" of a mixer, which is a standard label for one of the inputs of a mixer. Thus, those of ordinary skill would readily recognize that such a reference does not mean that a local oscillator is present;

and in fact a quick inspection of the drawings in Bouisse shows that the mixer receives signals coupled directly from the channel between the driver and load. In addition, paragraph [0024] explicitly says that these signals have the same frequency. Accordingly, Bouisse does not disclose or suggest the claimed local oscillator for producing a signal having a different frequency from the frequency of the microwave radiation which is for comparison with a portion of that microwave radiation that is reflected from a probe.

Therefore, for all of the additional foregoing reasons, it is submitted that independent claims 2, 19 and 29 are now all allowable. Consequently, as the remaining dependent claims, claims 3-13, 15-18, 21-26 and 40-42 each depend from a respective allowable independent claim, it is submitted that these dependent claims are allowable at least for the same reasons as the independent claim from which they depend.

For all of the foregoing reasons, it is submitted that the present application is in condition for allowance and such action is solicited.

Respectfully submitted,

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